

We Claim:

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~~1. A method for providing voice communication~~
between stations at two remote locations that are each
linked to public switched telephone networks (PSTNs)
comprising the steps of:

in response to placement of a telephone call by a
first one of said stations, determining quality of
service of a data packet network;

comparing the quality of service obtained in said
determining step with a predetermined threshold level;
and

in response to a result in said comparing step that
said predetermined threshold level is exceeded, routing
said telephone call to a second one of said stations
through said data packet network.

2. A method as recited in claim 1, wherein
placement of said telephone call comprises the step of
entering a unique service code.

3. A method as recited in claim 2, further
comprising the step of completing said telephone call to
said second station through an interexchange carrier
switching network if said predetermined threshold level
is not exceeded.

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4. A method as recited in claim ~~3~~¹, wherein the PSTN of the calling station is an advanced intelligent network (AIN) that includes an integrated services control point (ISCP) having stored therein subscriber call processing records (CPRs), and said completing step comprises

5 retrieving an interexchange carrier identity.

5. A method as recited in claim 4, wherein said interexchange carrier identity is specified in the subscriber CPR of the calling station.

6. A method as recited in claim 1, wherein said step of routing comprises exchanging signaling messages between the public switched telephone networks and said data packet network through interfaces.

7. A method as recited in claim 6, wherein said data packet network is the Internet.

8. A method as recited in claim 6, wherein said interfaces are gateway routers and said routing step comprises:

determining that the destination station is not

5 busy; and

establishing a circuit in said data packet network between a gateway router connected to the PSTN of the

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calling station and a router connected to the PSTN of the destination station.

9. A method as recited in claim 1, wherein the PSTN of the calling station is an advanced intelligent network (AIN) that includes an integrated services control point (ISCP) having stored therein subscriber call processing records (CPRs), and said comparing step comprises retrieving a stored threshold value from the subscriber CPR of the calling station.

10. A method as recited in claim 9, wherein said determining step comprises triggering said ISCP in response to input of a unique service code at the calling station.

11. A method as recited in claim 9, wherein said determining step comprises triggering said ISCP in response to an off hook condition at the calling station.

12. A method as recited in claim 11, wherein said determining step further comprises the step of ascertaining if dialed information received from the calling station corresponds to information stored in the subscriber CPR for the calling station; and

said comparing step occurs in response to a correspondence result in said ascertaining step.

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13. A method as recited in claim 12, wherein said dialed information is area code.

14. A method as recited in claim 12, wherein said dialed information is destination telephone number.

15. A method as recited in claim 9, wherein said determining step comprises:

transmitting at least one data packet through said data packet network;

receiving at least one response packet; and

measuring the round trip time duration therebetween.

16. A method as recited in claim 9, wherein said determining step comprises:

transmitting a plurality of data packets through said data packet network;

receiving a response packet for each data packet transmitted in said transmitting step;

successively measuring the round trip time duration between each data packet transmitted in said transmitting step and receipt of its corresponding response packet; and

ascertaining variance among said round trip time durations obtained in said measuring step.

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17. A method as recited in claim 15, wherein said threshold level is exceeded if the time duration measured in said measuring step is less than a stored value in the calling station CPR.

18. A method as recited in claim 16, wherein said threshold level is exceeded if said variance in said ascertaining step is less than a stored value in the calling station CPR.

19. A method as recited in claim 9, wherein said determining step comprises transmitting at least one sample packet to said data packet network that requests reservation of a minimum bandwidth level to be dedicated among intermediary data packet network elements.

20. A method as recited in claim 19, wherein said threshold level is a predetermined bandwidth level below which a call is routed through the PSTN network.

~~21. A communications network comprising:~~

~~a switched telecommunications network having interconnected central office switching systems and having subscriber lines connected to said central office switching systems providing connection between terminals connected to said subscriber lines, each of said central office switching systems responding to a service request~~

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on a subscriber line connected thereto to selectively provide a communication connection between the requesting line and another selected subscriber line through the connected central office switching system or through the connected central office switching system and at least one other central office switching system;

a separate control network for said switched telecommunications network comprising a common channel interoffice signaling network including signal transfer points connected to said central office switching systems through signal switching points via links between said signal switching points and signal transfer points;

a data network separate from said switched telephone network comprising multiple remotely spaced routers for linking together paths of said data network using transmission control protocols to provide connectionless packet service between remote locations of said data network;

at least two of said central office switching systems having connected thereto an interface to said data network, said central office switching systems providing selective connection between said interfaces and the subscriber lines connected to each of said central office switching systems; and

wherein each interface includes capability to invoke a quality test application for determining the quality of service in said data network.

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22. A communication network as recited in claim 21, wherein said control network comprises means responsive to the quality of service in the data network for selectively routing a voice call originating from a first central office switching system to a second central office switching system destination through said data network if said quality of service exceeds a threshold level.

23. A communication network as recited in claim ²¹/₂₂, wherein said data network is the Internet.

24. A communication network as recited in claim 23, wherein said interface is an Internet module that further comprises:

a processor having router and packet assembler and disassembler capabilities; and
means for compressing and decompressing voice data.

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